

WHAT IS CLAIMED IS:

1. An electrode for p-type Group III nitride compound semiconductor, comprising a film at least containing polycrystalline metal.

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2. An electrode for p-type Group III nitride compound semiconductor according to claim 1, wherein said polycrystalline metal has such a fiber structure that crystal planes of crystal grains are oriented.

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3. An electrode for p-type Group III nitride compound semiconductor according to claim 1, wherein said polycrystalline metal has large crystal grains.

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4. A method of producing an electrode for p-type Group III nitride compound semiconductor, comprising a step of forming a film at least containing polycrystalline metal on a p-type Group III nitride compound semiconductor in the condition that a semiconductor device having said p-type Group III nitride compound semiconductor is heated.

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5. A method of producing an electrode for p-type Group III nitride compound semiconductor according to claim 4, wherein the semiconductor device is heated at 200°C or higher.

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6. A method of producing an electrode for p-type Group  
III nitride compound semiconductor according to claim 4, wherein  
the semiconductor device is heated at a temperature not higher  
than lower one of a decomposition temperature of the p-type  
5 Group III nitride compound semiconductor and a melting point  
of the metal.